

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) A system configured to inspect a reticle, comprising:

an inspection subsystem configured to form a first aerial image of the reticle using a set of exposure conditions, wherein the set of exposure conditions comprises exposure conditions within a process window of an exposure system, and wherein the system is further configured to detect defects on the reticle using the first aerial image ~~can be used to detect defects on the reticle~~; and

a review subsystem coupled to the inspection subsystem, wherein the review subsystem is configured to form a second aerial image of the reticle, and wherein the system is further configured to review the defects on the reticle using the second aerial image ~~can be used to analyze the defects~~.

2. (Previously presented) The system of claim 1, wherein the inspection and review subsystems have common optics and one or more optical components that are not common to the inspection and review subsystems, and wherein the one or more optical components are replaced between inspection and defect review.

3. (Original) The system of claim 1, wherein the inspection and review subsystems have separate optics and a common stage.

4. (Original) The system of claim 1, wherein the inspection and review subsystems have separate stages and a common handler.

5. (Original) The system of claim 1, wherein the inspection subsystem and the review subsystem are further coupled such that inspection and review can be performed substantially simultaneously.

6. (Currently amended) A system configured to inspect a reticle, comprising:

an inspection subsystem configured to form a first aerial image of the reticle using a set of exposure conditions, wherein the set of exposure conditions comprises exposure conditions within a process window of an exposure system, ~~and wherein the first aerial image can be used to detect defects on the reticle;~~

a review subsystem coupled to the inspection subsystem, wherein the review subsystem is configured to form a second aerial image of the reticle, ~~and wherein the second aerial image can be used to analyze the defects;~~ and

an image computer configured to receive image data from the inspection and review subsystems representing the first and second aerial images, to detect defects on the reticle using the image data from the inspection subsystem, and to perform one or more functions on the image data ~~review of the defects on the reticle using the image data from the review subsystem.~~

7. (Original) The system of claim 6, wherein the image computer is further configured to generate a database comprising a reference image of the reticle.

8. (Currently amended) The system of claim 6, wherein the ~~one or more functions comprise detecting~~ image computer is further configured to detect the defects on the reticle by comparing a first portion of the image data from the inspection subsystem to a second portion of the image data from the inspection subsystem.

9. (Currently amended) The system of claim 6, wherein the ~~one or more functions comprise detecting image computer is further configured to detect~~ the defects on the reticle by comparing the image data from the inspection subsystem to a reference image of the reticle stored in a database.

10. (Currently amended) The system of claim 6, wherein the ~~one or more functions comprise detecting the defects on the reticle using the image data from the inspection subsystem and image computer is further configured to classify~~ classifying the defects using the image data from the review subsystem.

11. (Currently amended) The system of claim 6, wherein the ~~one or more functions comprise detecting the defects on the reticle using the image data from the inspection subsystem and determining image computer is further configured to determine~~ a root cause of the defects using the image data from the review subsystem.

12. (Original) The system of claim 6, wherein the image computer is further configured to run automated process control algorithms.

13. (Previously presented) The system of claim 6, wherein the image computer is coupled to one or more process tools, and wherein the image computer is further configured to send information to and receive information from the one or more process tools.

14. (Original) The system of claim 6, wherein the image computer is further configured to access a fab database and to send information to and receive information from the fab database.

15. (Original) The system of claim 6, wherein the image computer comprises a parallel processing system.

16. (Original) A method for inspecting a reticle, comprising:

inspecting the reticle by forming a first aerial image of the reticle while the reticle is disposed in a system and detecting defects on the reticle using the first aerial image; and

reviewing the defects by forming a second aerial image of the reticle while the reticle is disposed in the system and analyzing the defects using the second aerial image.

17. (Original) The method of claim 16, further comprising performing said inspecting and said reviewing substantially simultaneously.

18. (Original) The method of claim 16, further comprising performing said inspecting and said reviewing while the reticle is further disposed upon a common stage of the system.

19. (Original) The method of claim 16, further comprising altering optics of the system between said inspecting and said reviewing.

20. (Original) The method of claim 16, further comprising moving the reticle from a first stage to a second stage between said inspecting and said reviewing using one handler.